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**MAR 23 2009**

## Fax

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Subject:	Serial No: 10/783,729 Docket No: 5719 <u>Application of: Chan et al.</u> <u>Compositions and Methods for Cleaning</u> <u>Textile Substrates</u>	Date:	March 23, 2009
Copies:		Pages:	29 (including cover)

**Comments:**

Please find as follows:

Transmittal Sheet	-1 page
Brief on Appeal	-19 pages
Declaration /Exhibits A-D	- 9 pages

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Case No. 5719 MAR 23 2009

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Chan et al.  
 Serial Number: 10/783,729  
 Filed: February 20, 2004  
 For: **COMPOSITIONS AND METHODS FOR CLEANING TEXTILE SUBSTRATES**  
 Group Art Unit: 1796  
 Examiner: Hardee, John R.

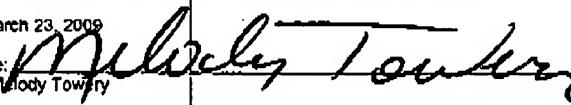
**BRIEF ON APPEAL UNDER 37 CFR 1.192**

Commissioner for Patents  
 PO Box 1450  
 Alexandria, Virginia 22313-1450

Sir:

CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 C.F.R. § 1.6(d)  
 I hereby certify that this correspondence is being transmitted by facsimile to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, at (703) 273-8300.

Date: March 23, 2009

Signature:   
 Name: Melody Towery

The following Appeal Brief is submitted pursuant to the Notice of Appeal dated January 21, 2009.

**I. REAL PARTY IN INTEREST**

The above-referenced application is the subject of an assignment to Milliken & Company, located at 920 Milliken Road, Spartanburg, South Carolina, which is the real party in interest.

**II. RELATED APPEALS & INTERFERENCES**

Appellants are not aware of any other appeal or interference that will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

Claims 6 – 7, 13 – 17, 19 – 30, 32 – 33, 35 – 36 and 38 have been cancelled. Claims 1 – 5, 8 – 12, 18, 31, 34, 37 and 39 – 42 are rejected and are the subject of this Appeal.

10783729

**IV. STATUS OF AMENDMENTS**

No amendment was filed after the Office Action dated October 17, 2008.

Adjustment date: 03/24/2009 HMARZ11  
 09/03/2008 VBU11 00000049 040500 10783729  
 01 FC:1402 510.00 CR

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**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The subject application is directed to liquid cleaning compositions for textile substrates, especially for upholstery and carpet fabrics.

Claim 1 is directed to a liquid cleaning composition for a textile substrate consisting of: (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate selected from urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, and wherein the absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40; (b) at least 35 parts water, wherein the water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter; (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein the dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily dispersed dispersion; and (d) at least one compound selected from the group consisting of a pH adjuster, a biocide, and a fragrance. The features of Claim 1 are described, for example, in the specification on page 11 (line 5) to page 12 (line 2), on page 12 (lines 18) to page 14 (line 11), on page 15 (line 26) to page 16 (line 2), on page 16 (lines 11-19), and in Examples 1 - 11.

Claim 31 is directed to a liquid cleaning composition for a textile substrate consisting of: (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate selected from urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, and wherein the absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40; (b) at least 35 parts water, wherein the water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter; (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein the dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily dispersed dispersion; and (d) from about 0.01 to about 50 parts by weight of a vacuum retrieval additive selected from the group consisting of polyoxyalkylene materials, aluminum silicate clay, hydrolyzed styrene maleic anhydride, and mixtures thereof. The features of Claim 31 are described, for example, in the specification on page 11 (line 5) to page 12 (line 2), on page 12 (lines 18) to page 14 (line 11), on page 15 (line 26) to page 16 (line 2), on page 16 (lines 4-6), on page 16 (lines 18-19), in Example 8A, in Examples 9B-9F, and in Examples 1 - 11.

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Claim 34 is directed to a liquid cleaning composition for a textile substrate consisting of: (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate selected from urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, and wherein the absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40; (b) at least 35 parts water, wherein the water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter; (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein the dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily dispersed dispersion; (d) from about 0.01 to about 50 parts by weight of a vacuum retrieval additive selected from the group consisting of polyoxyalkylene materials, aluminum silicate clay, hydrolyzed styrene maleic anhydride, and mixtures thereof; and (e) from about 0.01 to about 50 parts by weight of at least one compound selected from a pH adjuster, a fragrance, and an organic liquid, wherein the organic liquid is selected from C<sub>1</sub> to C<sub>4</sub> aliphatic alcohols, high boiling hydrocarbon solvents, and mixtures thereof. The features of Claim 34 are described, for example, in the specification on page 11 (line 5) to page 12 (line 2), on page 12 (lines 4-5), on page 12 (lines 18) to page 14 (line 11), on page 15 (line 26) to page 16 (line 2), on page 16 (lines 4-19), in Examples 8B-8C, and Examples 1 - 11.

Claim 37 is directed to a liquid cleaning composition for a textile substrate consisting of: (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate selected from urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, and wherein the absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40; (b) at least 35 parts water, wherein the water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter; (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein the dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily dispersed dispersion; (d) from about 0.01 to about 50 parts by weight of an acrylic stain resist agent; and (e) an aerosol propellant. The features of Claim 37 are described, for example, in the specification on page 11 (line 5) to page 12 (line 2), on page 12 (lines 18) to page 14 (line 11), on page 15 (line 26) to page 16 (line 2), on page 16 (lines 10-11 and 15-16), in Example 4 (page 25, lines 2-21), and in Examples 1 - 11.

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**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

- (A) Claims 1-5, 8-12, 18, 31, 34 and 39-40 stand rejected under 35 USC Section 103(a) as being obvious over Trinh et al. (US Pat. No. 4,481,126).
- (B) Claims 37, 41 and 42 stand rejected under 35 USC Section 103(a) as being obvious over Trinh et al. (US Pat. No. 4,481,126) in view of Froehlich et al. (USPN 3,910,848) or Brown (USPN 5,514,302).

**VII. ARGUMENT**

- A. **Claims 1-5, 8-12, 18, 31, 34 and 39-40 stand rejected under 35 USC Section 103(a) as being obvious over Trinh et al. (US Pat. No. 4,481,126).**

The Office submits that Trinh discloses:

- (a) a substantially nonabrasive, liquid car cleaner composition which cleans car surfaces without an external source of water to wash or rinse and that the product is a composition of up to 30% polymeric solids, up to 95% liquid carrier and a suspension aid (Abstract);
- (b) that other optional ingredients such as waxes, fluorosurfactants, anticorrosion agents, antistatic agents, sunscreening agents, inorganic mild abrasives, pigments, perfumes, and preservatives can also be used for added benefit (col. 2, lines 64-68);
- (c) that the composition comprises organic polymeric solids selected from the group consisting of porous and/or nonporous powdered particles in the particle size range of from 1 micron to about 250 microns (col. 2, lines 37 – 42);
- (d) that mixtures of water and aliphatic hydrocarbon (oil) solvents are used as the liquid carrier at levels up to 95% by weight;
- (e) that both surfactants and thickeners are used as the suspending agent; and
- (f) the surfactants are also used as emulsifier and cleaning aid (col. 2, lines 53-56 and 59-62).

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The Office also submits that Trinh teaches suitable polymeric particulate materials can be synthetic or naturally-occurring polymeric materials such as urea-formaldehyde resin and cellulosic materials (col. 3, lines 34-44).

The Office also contends that the reference teaches that the suspending agents have the properties of dispersing solid particles and liquid droplets and can be used to disperse the polymeric particles throughout the cleaner compositions. Further, the reference states that thickener suspending agents can be used at levels of up to 10% (col. 5, lines 18-45).

The Office also notes that the reference fails to teach the specific surfactant of claims 11 and 12. However, the Office submits that there would be a reasonable expectation of success to modify the prior art to arrive at the instantly claimed invention because the prior art does suggest that any surfactant that is compatible with the system may be used.

With respect to claim 34, the Office states that the reference teaches that hydrocarbons solvents may be added (col. 4, lines 60+) and that polyethylene oxide (a polyoxyalkylene material) may be added (col. 5, line 43).

In response to Appellants' assertion that there is no motivation to modify the silicone containing composition of the reference to arrive at Appellants' composition, the Office states that this is not persuasive because the reference clearly teaches that silicone is preferred but optional nonetheless (see Final Office Action dated 12/5/05, page 9).

In order to establish a *prima facie* case of obviousness, MPEP 2143 states that (a) there must be a motivation or suggestion to combine [or modify] the references, (b) there must be a reasonable expectation of success if the combination or modification is made, and (c) all the claim limitations must be considered. Appellants respectfully submit that (a) – (c) have not been met; and therefore, the instant claims are not obvious in light of the prior art.

Additionally, the Office asserts that "there is no need to omit silicone for the claims to read on the Trinh reference" and "the silicone does not affect cleaning in any deleterious fashion" (see Final Office Action dated 12/5/05, page 9). Appellants respectfully disagree with this assertion.

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Trinh teaches the use of silicone materials in their cleaning composition to enhance the appearance of car surfaces, improve the ease of application and removal of the cleaner and to make the car surfaces water repellent for added protection (col. 5, line 68 to col. 6, line 4). Trinh specifically exemplifies the use of 4% by weight of silicone in each of Examples I through XVI. Trinh also claims the use of silicone in claims 1 and in claims 31-33. These properties, such as improving ease of application and removal of the cleaner and making the surface water repellent, would similarly be ideal for Appellants' cleaning composition on a textile article. However, Appellants have provided evidence in the 1.132 Declaration (submitted to the Office on October 12, 2006 and attached hereto) that the use of silicone materials, as taught by Trinh, is actually detrimental to the cleaning of textile articles.

Appellants hereby submit a Declaration under 37 CFR Section 1.132 by Michael Metcalf, one of the inventors of the instant application, dated September 13, 2006, which provides evidence that the addition of silicone as taught by Trinh is deleterious to the composition taught and claimed by Appellants and is not suitable for cleaning textile substrates. The Declaration also includes Exhibits A – D (which were submitted in color to the Office on 10/12/06). These Exhibits illustrate the differences between the Inventive Composition and the Trinh Composition when applied to textile substrates.

The comparative testing performed by Appellants and illustrated in Exhibits A – D is as follows:

With regard to Exhibits A – D, Appellants re-created the cleaning compositions of Examples VIII and IX (of the Trinh reference). Examples VIII and IX include, among other ingredients, silicone compounds. These cleaning compositions of Trinh and the cleaning composition of the instant invention were applied to various carpet and fabric substrates (i.e. textile substrates) and visual observations were noted and photographed.

Exhibit A shows the cleaning compositions applied to the textile substrates. The inventive composition is a uniform, stable dispersion. In contrast, the Trinh compositions are non-uniform, pasty, and have formed many large and small clumps.

Exhibit B shows the cleaning compositions after they have been rubbed into the textile surface (this procedure aids in removing soil from the textile substrate). Again, the inventive composition is a stable dispersion. In contrast, the Trinh compositions are clumpy. It appears as though the

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composition of Example VIII is unable to even penetrate the surface of the textile substrate to provide any cleaning efficacy whatsoever. Example IX appears to have penetrated the surface of the textile substrate to some degree, but it also has formed many clumps as well.

Exhibit C shows the cleaning compositions after vacuuming. The inventive composition has been removed completely from the textile substrates. The cleaning composition of Example VIII has been removed completely as well; however, since it never penetrated the surface of the textile substrate to begin with, one might expect that it would be easily removed from the textile substrate. But, without penetrating the surface of the textile substrate, the cleaning composition does not provide any cleaning efficacy whatsoever. With regard to Example IX, vacuuming removed the clumps that were present on the textile substrate; however, the remainder of the cleaning composition of Example IX remained adhered to the surface of the textile substrate after vacuuming.

The carpet substrates from Exhibit C were then soiled. Then, the application, rubbing, and vacuuming process described above was repeated for all textile substrates. Exhibit D shows the textile substrates after this process. The inventive composition was again completely removed from the textile substrates. The soil was completely removed as well. The cleaning composition of Example VIII formed clumps during the application and rubbing steps, and thus, did not penetrate the surface of the textile substrates to provide any cleaning efficacy. The cleaning composition of Example IX penetrated the surface of the textile substrates to some degree and formed small clumps. The small clumps were removed during vacuuming, but the cleaning composition that did penetrate the surface of the textile substrates remained adhered to the substrates.

With regard to the soil applied to the carpet samples of Examples VIII and IX, the dark areas observed on the carpet show that the soil was not completely removed from the carpet for either of Trinh's cleaning compositions. The cleaning compositions of Examples VIII and IX that are noted as containing less silicone appear to be slightly less soiled than their counterparts, which have more silicone present in the cleaning composition. This leads one to believe that silicone detrimentally affects the ability of the cleaning composition to remove soil from textile substrates such as carpet.

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Thus, Appellants respectfully contend that the cleaning compositions taught by Trinh are not suitable for use as cleaning compositions for textile substrates, as taught and claimed by Appellants. Furthermore, the additional ingredients required in the Trinh composition (e.g. silicone) do indeed have a deleterious affect on the cleaning efficacy of the cleaning composition when used on textile substrates.

Trinh et al. clearly require the presence of silicone and polymeric fibers within its car cleaning composition (see claims and Examples). While the Office contends that silicone fails to "materially affect" the properties of the compositions taught by Trinh, Appellants respectfully disagree and note that silicone is a required component in the claims. Furthermore, Trinh include silicone in nearly every example provided in the specification (see DC 200® Silicones shown in Examples 1-XVI). Additionally, Trinh disclose that the silicone is included to "provide or enhance the gloss/shine appearance of car surfaces, improve the ease of application and removal of the cleaner, and make the car surfaces water repellent for added protection" (col. 6, lines 1-4). Furthermore, silicone is suggested for use at levels up to 20% by weight of the composition (col. 2, lines 61-62). While Trinh et al. may suggest that silicone is an optional ingredient (column 2, line 65 to column 3, line 31), none of the other "optional ingredients" appear to be included in the Examples and claims provided by Trinh et al.

As a result of such teachings by Trinh, Appellants respectfully submit that silicone is a required component of Trinh's composition. The Declaration provides evidence that the cleaning compositions taught by Trinh are not suitable for use as cleaning compositions for textile substrates, as taught and claimed by Appellants. Furthermore, the additional ingredients required in the Trinh composition (e.g. silicone) do indeed have a deleterious affect on the cleaning efficacy of the cleaning composition when used on textile substrates. Thus, Appellants respectfully contend that the Declaration submitted herewith is adequate evidence to over come this rejection.

Additionally, Appellants respectfully submit that one of ordinary skill in the art would also need some motivation or suggestion by Trinh that the car cleaning composition would be acceptable for use on textile substrates. For example, how would one know whether the composition could be removed from a carpet? Or, would the composition successfully remove soil from an upholstery fabric? Appellants respectfully contend that there is no motivation or suggestion provided by Trinh that would lead one of ordinary skill in the art to conclude that Trinh's composition would

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work for textile substrates or that it could be modified for use on textile substrates. In other words, Appellants respectfully submit that there is no expectation of success provided by the teachings of Trinh et al. that the car cleaning composition would be suitable for use on textile substrates.

Thus, the position of the Office regarding the applicability of Trinh to the pending claims is untenable as a clear exercise of improper hindsight reconstruction of Appellants' claimed invention. Appellants respectfully submit that the ordinarily skilled artisan would not view the disclosure provided by Trinh et al. for car cleaning compositions, which teaches the presence of silicone and polymeric fibers, and take away from this teaching any motivation of removing such required components from the Trinh composition. Nor would the ordinarily skilled artisan expect that the Trinh composition would work on a textile substrate.

Accordingly, Appellants respectfully submit that there is no motivation provided by the reference for modifying the silicone-containing composition taught by Trinh to arrive at Appellants' claimed invention. Additionally, no reasonable expectation of success is provided that in modifying the composition of Trinh, one of ordinary skill in the art would arrive at Appellants' claimed invention.

Additionally, in order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be considered by the prior art (MPEP § 2143). Appellants respectfully submit that Trinh et al. fail to teach or suggest all the limitations of the instant claims. More specifically, Trinh et al. fail to provide a teaching or fair suggestion of a dispersion stabilizing agent selected from cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein the dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily redispersed dispersion.

In fact, Appellants respectfully submit that there is no teaching whatsoever by Trinh et al. of a dispersion stabilizing agent selected from cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein the dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily redispersed dispersion. The Office makes the argument that Trinh et al. teach that "suspending agents useful in this invention are suitable surfactants and thickeners and mixtures thereof" and that "these surfactant suspending agents have the properties of dispersing solid particles and liquid droplets." The Office provides no evidence of this assertion. As such, Appellants respectfully assert that all of the claim limitations have not been considered.

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In addition, Appellants respectfully submit that the rejection fails to establish a *prima facie* showing of obviousness, since the reference teaches away from Appellants' claimed invention. Case law states that "[A] prior art reference may be considered to teach away when 'a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.'" Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH, 1998 WL 117765 at \*8 (Fed. Cir. 1998); In re Gurley, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).

Appellants respectfully assert that the teaching by Trinh of silicone-containing compositions and the test results provided by Appellants in the Declaration provide evidence that the Trinh reference actually teaches away from Appellants' claimed invention, since Trinh teaches the use of compounds which deleteriously affect the cleaning ability of Appellants' composition. Thus, Appellants assert that one of ordinary skill in the art would not look to a composition that contains silicone compounds to create a composition ideally suited to clean textile substrates. It simply would not be an obvious choice. As such, in light of the Declaration contents and the claim amendments contained herein, Appellants respectfully submit that this rejection is improper. Reconsideration and withdrawal is earnestly requested.

Accordingly, Appellants respectfully submit that the rejection fails to provide a *prima facie* case of obviousness, since (a) there is no motivation or suggestion to modify the reference, (b) there is no reasonable expectation of success, even if the modification is made, and (c) all the claim limitations have not been considered, as required by MPEP 2143. Furthermore, Appellants have provided evidence via a Declaration under 37 CFR §1.132 of the un-suitability of the hard surface cleaning compositions taught and claimed by Trinh, when attempts were made to use such compositions to clean textile substrates. As such, reconsideration and reversal of this rejection is earnestly and respectfully requested.

- B. **Claims 37, 41 and 42 stand rejected under 35 USC Section 103(a) as being obvious over Trinh et al. (US Pat. No. 4,481,126) in view of Froehlich et al. (USPN 3,910,848) or Brown (USPN 5,514,302).**

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The Office relies on the discussion of Trinh presented previously. The Office submits that Trinh fails to teach that aerosol may be used with the liquid cleaner of the variety disclosed. The Office relies upon Froehlich or Brown for such a teaching.

The Office submits that Froehlich teaches that a cleaning composition containing polymer urea-formaldehyde polymer particles having a particle size of from 10 to 105 microns and an oil value of at least 90, a halogenated solvent boiling at from 45 degrees to 120 degrees C, a silica antisettling agent, a cationic antistatic agent, and an aerosol propellant selected from at least one of trichlorofluoromethane; dichlorofluoromethane; 1,2-dichlorotetrafluoroethane; propane; isobutene and butane (col. 1, lines 37-60). Thus, the Office submits that there is a reasonable expectation of success that an aerosol may be used with the composition of the reference as the composition of the secondary reference has similar structural properties, uses and components.

The Office submits that Brown teaches "an improved aqueous fabric cleaning shampoo composition fabric solid cleaning polymer, surfactant in water" which may be in the form of a self-pressurized aerosol, with a conventional propellant such as dimethyl ether or one or more saturated alkanes containing from 2 to 6 carbon atoms such as propane, isopropane, n-butane, isobutane, isopentane or n-hexane is added through the valve. Although the reference does not disclose the use of an aerosol propellant, the use of aerosols with cleaning compositions is well known in the art (Brown, abstract and col. 10, lines 27-48). Therefore, the Office asserts that there is a reasonable expectation of success that an aerosol may be used with the composition of the reference as the composition of the secondary reference has similar structural properties, uses and components.

Appellants respectfully rely on the discussion presented above with regard to the deficiencies of Trinh and note that the Office cites Froehlich and Brown for a teaching of aerosol compounds.

Appellants respectfully rely on the discussion presented above with respect to the teachings of Trinh and submit that the combination of Trinh and Froehlich and the combination of Trinh and Brown fail to provide a *prima facie* case of obviousness over Appellants' claims. Appellants respectfully assert that Froehlich and Brown do not provide for the deficiencies of Trinh, as set forth above. Accordingly, Appellants respectfully submit that this rejection is improper. Reconsideration and withdrawal of this rejection is earnestly requested.

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**CONCLUSION**

For the reasons set forth above, Appellants respectfully urge that the rejections of Claims 1 – 5, 8 – 12, 18, 31, 34, 37 and 39 – 42 are improper. Reversal of all rejections in this Appeal is hereby requested.

A copy of pending Claims 1 – 5, 8 – 12, 18, 31, 34, 37 and 39 – 42 is attached hereto in the Claims Appendix. A copy the Declaration Under 37 CFR §1.312 from Michael Metcalf (9 pages) is attached hereto in the Evidence Appendix.

Appellants note that an Appeal Brief fee was paid in connection with the previously submitted Appeal Brief dated September 2, 2008. Thus, Appellants respectfully believe that only a \$30 fee is due at this time (i.e. the difference between the current fee of \$540 and the previously paid fee of \$510).

The Commissioner is hereby authorized to charge the fee of \$30.00 to Deposit Account No. 04-0500. The Commissioner is also authorized to charge any additional fees that may be required, or credit any over-payment, to Deposit Account No. 04-0500.

Respectfully submitted,

March 23, 2009

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**VIII. CLAIMS APPENDIX****RECEIVED  
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**Claim 1 A liquid cleaning composition for a textile substrate consisting of:**

- (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate, said absorbent particulate being selected from the group consisting of a urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, wherein said absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40;
- (b) at least 35 parts water, wherein said water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter;
- (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from the group consisting of cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein said dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily redispersed dispersion; and
- (d) at least one compound selected from the group consisting of a pH adjuster, a biocide, and a fragrance.

**Claim 2 The liquid cleaning composition of claim 1, wherein said average particle size of said absorbent particulate is from about 10 to about 200 microns.**

**Claim 3 The liquid cleaning composition of claim 1, wherein said average particle size of said absorbent particulate is from about 10 to about 105 microns.**

**Claim 4 The liquid cleaning composition of claim 1, wherein said average particle size of said absorbent particulate is from about 35 to about 105 microns.**

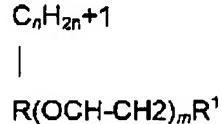
**Claim 5 The liquid cleaning composition of claim 1, wherein said absorbent particulate is urea formaldehyde polymeric material.**

**Claims 6 - 7 (cancelled)**

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- Claim 8 The liquid cleaning composition of claim 1, wherein part "b" of said liquid cleaning composition contains at least 50 parts water, wherein said water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter.
- Claim 9 The liquid cleaning composition of claim 1, wherein part "b" of said liquid cleaning composition contains at least 75 parts water, wherein said water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter.
- Claim 10 The liquid cleaning composition of claim 1, wherein said surfactant is selected from the group consisting of nonionic surfactants, anionic surfactants, cationic surfactants, and combinations thereof.
- Claim 11 The liquid cleaning composition of claim 10, wherein said surfactant is a nonionic surfactant, and wherein said nonionic surfactant has the formula:



where n is 0 or 1, m is 3 to 20, R' is OH or OCH<sub>3</sub>, R is C<sub>12</sub> to C<sub>22</sub> alkyl or phenyl or naphthyl optionally substituted by C<sub>1</sub> to C<sub>10</sub> alkyl groups.

- Claim 12 The liquid cleaning composition of claim 10, wherein said surfactant is an anionic surfactant, and wherein said anionic surfactant is a long chain alcohol sulfate ester or an alkylene oxide additive of C<sub>6</sub>-C<sub>10</sub> mono and diesters of ortho-phosphoric acid.

Claims 13 – 17 (cancelled)

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**Claim 18** The liquid cleaning composition of claim 1, wherein said biocide is selected from the group consisting of potassium sorbate, an isothiazolone compound and mixtures thereof.

Claims 19 – 30 (cancelled)

**Claim 31** A liquid cleaning composition for a textile substrate consisting of:

- (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate, said absorbent particulate being selected from the group consisting of a urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, wherein said absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40;
- (b) at least 35 parts water, wherein said water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter;
- (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from the group consisting of cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein said dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily redispersed dispersion; and
- (d) from about 0.01 to about 50 parts by weight of a vacuum retrieval additive selected from the group consisting of polyoxyalkylene materials, aluminum silicate clay, hydrolyzed styrene maleic anhydride, and mixtures thereof.

Claims 32 – 33 (cancelled)

**Claim 34** A liquid cleaning composition for a textile substrate consisting of:

- (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate, said absorbent particulate being selected from the group consisting of a urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, wherein said absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40;

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- (b) at least 35 parts water, wherein said water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter;
- (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from the group consisting of cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein said dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily redispersed dispersion;
- (d) from about 0.01 to about 50 parts by weight of a vacuum retrieval additive selected from the group consisting of polyoxyalkylene materials, aluminum silicate clay, hydrolyzed styrene maleic anhydride, and mixtures thereof; and
- (e) from about 0.01 to about 50 parts by weight of at least one compound selected from the group consisting of a pH adjuster, a fragrance, and an organic liquid, wherein said organic liquid is selected from the group consisting of C<sub>1</sub> to C<sub>4</sub> aliphatic alcohols, high boiling hydrocarbon solvents, and mixtures thereof.

Claims 35 – 36 (cancelled)

Claim 37 A liquid cleaning composition for a textile substrate consisting of:

- (a) from about 2.0 to about 75 parts by weight of at least one absorbent particulate, said absorbent particulate being selected from the group consisting of a urea formaldehyde polymeric material, polyurethane, cellulosic particles, and mixtures thereof, wherein said absorbent particulate has an average particle size of from about 10 to about 300 microns in diameter and an oil absorption value of at least 40;
- (b) at least 35 parts water, wherein said water contains a surfactant sufficient to provide a surface tension of less than about 40 dynes per centimeter; and
- (c) from about 0.01 to about 50 parts by weight of a dispersion stabilizing agent selected from the group consisting of cellulosic polymers, clay compounds, xanthan gums, and mixtures thereof, wherein said dispersion stabilizing agent is present in an amount sufficient to produce a stable or easily redispersed dispersion;
- (d) from about 0.01 to about 50 parts by weight of an acrylic stain resist agent; and

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(e) an aerosol propellant.

**Claim 38 (cancelled)**

**Claim 39** The liquid cleaning composition of claim 31, wherein said absorbent particulate is urea formaldehyde polymeric material.

**Claim 40** The liquid cleaning composition of claim 34, wherein said absorbent particulate is urea formaldehyde polymeric material.

**Claim 41** The liquid cleaning composition of claim 37, wherein said absorbent particulate is urea formaldehyde polymeric material.

**Claim 42** The liquid cleaning composition of claim 37, wherein said aerosol propellant is selected from the group consisting of propane, butane, carbon dioxide and mixtures thereof.

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**IX. EVIDENCE APPENDIX**

Declaration Under 37 CFR §1.312 from Michael Metcalf (9 pages)

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**X. RELATED PROCEEDINGS APPENDIX**

NONE.

MAR 23 2009

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Marie Chan et al.  
Serial Number: 10/783,729  
Filed: February 20, 2004  
For: **COMPOSITIONS AND METHODS FOR CLEANING TEXTILE SUBSTRATES**  
Group Art Unit: 1751  
Examiner: John R. Hardee

**DECLARATION UNDER 37 C.F.R. § 1.132**

Honorable Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

I, Michael Metcalf, declare the following:

1. For the last twenty-one (21) years I have been employed by Milliken & Company located in Spartanburg, South Carolina.
2. My experience in the textile and chemical industry has been devoted to the research, design, and processing of additives for application to and/or on textile products. My current position with Milliken & Company is as a Senior Technical Associate with Milliken Chemical Division.
3. For the last fourteen (14) years with Milliken & Company, my work has primarily focused on the development and testing of commercial and residential cleaning products for textile substrates.
4. I am familiar with the above-referenced patent application as Applicant as well as US Pat. No. 4,481,126 (hereinafter, the '126 Patent). It is clear that the claims of the above-referenced application require the addition of silicone to the liquid

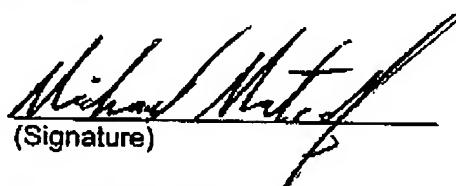
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cleaning composition. It is also clear that the '126 Patent is directed for use on hard surfaces such as automobile exteriors.

5. I have undertaken some comparative experiments to determine the effects of using the liquid cleaning composition of the '126 Patent, which includes silicone, on a textile substrate (see the attached "Comparative Testing" and Exhibits A – D). Such data shows that the '126 Patent compositions deleteriously affect the ability of the composition to clean a textile substrate.
6. Thus, in my opinion, the specific teachings of the '126 Patent do not accord a liquid cleaning composition for use on textile substrates as required within Applicants' claims and that the addition of silicone in the '126 Patent deleteriously affects the cleaning efficacy of the composition. Hence, in my opinion, such a comparison shows the unobviousness of the claimed invention in light of the teachings of the '126 Patent.
7. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.



(Signature)

Name: Michael Metcalf  
Residence: 404 Carrington Drive  
Citizenship: Boiling Springs, South Carolina 29316  
United States of America

Date: September 19, 2006

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### Comparative Testing

The comparative testing performed by Applicants and illustrated in Exhibits A – D is as follows:

Applicants re-created the cleaning compositions of Examples VIII and IX of the '126 Patent. Examples VIII and IX included, among other ingredients, silicone compounds. Comparative testing was also done by preparing Examples VIII and IX without silicone being present in the composition (i.e. "Trinh Example VIII Less Silicone" and "Trinh Example IX Less Silicone").

The "Inventive Composition" represents the cleaning composition of the instant invention. For this testing, the "Inventive Composition" comprised:

<u>Ingredient</u>	<u>Amount (% by wt.)</u>
Water	96.2775
Urea Formaldehyde Polymer	1.0
Veegum® T (smectite clay)	2.0
Citric Acid (pH adjuster)	0.02
Butyl Cellosolve (solvent)	0.5
Pluronic® LF L62 (surfactant)	0.20
Fragrance	0.0025

The cleaning compositions of Examples VIII and IX (with and without silicone) and the Inventive Composition were applied to various carpet and fabric substrates (i.e. textile substrates) and visual observations were noted and photographed.

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Exhibit A shows the cleaning compositions applied to tan/beige pile carpet and to blue and red fabric samples. The Inventive Composition was a uniform, stable dispersion. In contrast, the compositions of Examples VIII and IX were non-uniform, pasty, and formed many large and small clumps.

Exhibit B shows the cleaning compositions after they have been rubbed into the carpet and fabric samples (this procedure aids in removing soil from the textile substrates). Again, the Inventive Composition was a stable dispersion. In contrast, the compositions of Examples VIII and IX were clumpy. It appears as though the composition of Example VIII was unable to even penetrate the surface of the carpet and fabric samples to provide any cleaning efficacy whatsoever. Example IX penetrated the surface of the carpet and fabric samples to some degree, but it also formed many clumps as well.

Exhibit C shows the cleaning compositions after drying overnight and then vacuuming. The inventive composition was removed completely from the carpet and fabric samples. The cleaning composition of Example VIII was removed completely as well; however, it never penetrated the surface of the carpet and fabric samples to provide any cleaning efficacy whatsoever. With regard to Example IX, vacuuming removed the clumps that were present on the carpet and fabric samples; however, the remainder of the cleaning composition of Example IX remained adhered to the surface of the carpet and fabric samples after vacuuming (most visible on the fabric samples).

The carpet samples from Exhibit C were then soiled. Then, the application, rubbing, and vacuuming process described above was repeated for the carpet samples. Exhibit D shows the carpet samples after this soiling and cleaning process. The Inventive Composition was again completely removed from the carpet samples. The soil was completely removed as well. The cleaning composition of Example VIII formed clumps during the application and rubbing

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steps, and thus, did not penetrate the surface of the carpet samples to provide any cleaning efficacy. The cleaning composition of Example IX penetrated the surface of the carpet samples to some degree and formed small clumps. The small clumps were removed during vacuuming, but the cleaning composition that did penetrate the surface of the carpet samples remained adhered to the carpet.

With regard to the soil applied to the carpet samples of Examples VIII and IX, the dark areas observed on the carpet show that the soil was not completely removed from the carpet for either of Trinh's cleaning compositions. The cleaning compositions of Examples VIII and IX that are notated as not containing silicone appear to be slightly less soiled than their counterparts which contain the silicone component.

The comparative testing presented herein indicates that silicone detrimentally affects the ability of the cleaning composition of the '126 Patent to remove soil from textile substrates such as carpet. The test results further indicate that the compositions taught by the '126 Patent fail to function as a suitable cleaning composition for a textile substrate.

In furtherance of the Declaration and Exhibits A – D to which this Comparative Testing is attached, I, Michael Metcalf, do solemnly attest to the fact that I performed the above experiments.

Date: September 19, 2006

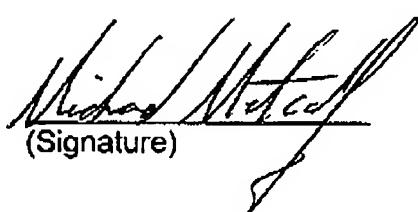
  
(Signature)

Exhibit A

Inventive  
Composition

Trinh  
Example VIII

Trinh  
Example VII  
Less Silicone

Trinh  
Example IX

Trinh  
Example IX  
Less Silicone

Product Applied

Exhibit A

*Exhibit B*

Inventive  
Composition

Trinh  
Example VII

Less Silicone

Trinh  
Example IX

Less Silicone

Trinh  
Example IX

Less Silicone

*Post Rub in*

*Exhibit B*

Exhibit C

Inventive  
Composition

Trinh  
Example VIII

Less Silicone

Trinh  
Example IX

Less Silicone

Trinh  
Example IX

Less Silicone

Post vacuuming

Exhibit C

*Exhibit D*

Inventive  
Composition

Trinh  
Example VIII

Trinh  
Example VII  
Less Silicone

Trinh  
Example IX  
Less Silicone

Trinh  
Example IX  
Less Silicone

Soiled and then vacuumed second time

*Exhibit D*